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PCT/EP2003/007417

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JAN 2005

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## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2120/1-PCT	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/007417	International filing date (day/month/year) 09 July 2003 (09.07.2003)	Priority date (day/month/year) 10 July 2002 (10.07.2002)
International Patent Classification (IPC) or national classification and IPC C23G 1/36		
Applicant UVK ENGINEERING GMBH		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>3</u> sheets.</p>	
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>	

Date of submission of the demand 10 February 2004 (10.02.2004)	Date of completion of this report 01 October 2004 (01.10.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/007417

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed
- ☒ the description:  
pages \_\_\_\_\_, 1, 3-15 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, 2, 2a, 2b \_\_\_\_\_, filed with the letter of \_\_\_\_\_ 19 July 2004 (19.07.2004)
- ☒ the claims:  
pages \_\_\_\_\_, 1-25 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, as amended (together with any statement under Article 19  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the drawings:  
pages \_\_\_\_\_, 1/3-3/3 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-15, 17, 18, 23	YES
	Claims	16, 19-22, 24, 25	NO
Inventive step (IS)	Claims	4-13, 15, 17, 18, 23	YES
	Claims	1-3, 14, 16, 19-22, 24, 25	NO
Industrial applicability (IA)	Claims	1-25	YES
	Claims		NO

2. Citations and explanations

1. This report makes reference to the following documents:

D1: KLDNIG W F: 'INDUSTRIELLE OXIDROHSTOFFE HERSTELLUNG NACH DEM ANDRITZ-RUTHNER-SPRUEHROSTVERFAHREN', SPRECHSAAL, VERLAG DES SPRECHSAAL MULLER UND SCHMIDT, COBURG, DE, Vol. 124, No. 11/12, 1 November 1991 (1991-11-01), pages 748-754, XP000272593, ISSN: 0341-0676

D2: EP-A-0 578 537 (LORRAINE LAMINAGE), 12 January 1994 (1994-01-12)

2. Document D1 discloses a method for preparing metal pickling solutions and at the same time producing iron oxides poor in silicic acid. The pickling solution is first neutralised with metal scrap (conversion of the free acids into the metal salt form), silicic acid is separated, the solution is concentrated in the "preconcentrator" and supplied to a spray calcination stage. Document D1 relates mainly to the production of iron oxides, but also clearly discloses methods for preparing pickling solutions. It is repeatedly stated in that document

that the metal salt solution used is a pickling solution and that one of the advantages of the method is the recycling of hydrochloric acid (see D1, "description of the method", "products for the ferrite industry", and figure 1).

- 2.1 Document D2 discloses a method for purifying used pickling solutions. The pickling solution is first neutralised with a metal and silicic acid is separated. The purified solution is supplied to a spray calcination stage (see column 1, lines 11-23; the claims; and example 2).
- 2.2 Both documents fail to disclose precisely how the rinsing and used air scrubbing waters produced in the pickling installation are treated. The methods as per claims 1-15 are therefore novel (PCT Article 33(2)).
- 2.3 However, document D1, in particular, discloses devices as per claims 16, 19-22, 24 and 25. A device does not become novel in that it is used to implement a novel method. A device, such as the device used in D1, does not differ from a device in which rinsing water or used air scrubbing water are also treated. The subject matter of these claims is therefore not novel.

Document D1 does not disclose an installation for separating the pickling solution or an installation for neutralising rinsing water or used air scrubbing water. The subject matter of claims 17, 18 and 23 is therefore novel.

3. The objective problem solved by the methods as per

claims 1-3 and 14 can be considered to be, in view of the disclosure of documents D1 or D2, to be that of proposing a method which also permits the treatment of industrial effluents.

Both documents D1 and D2 fail to disclose precisely how the rinsing water and used air scrubbing water produced in the pickling installation are treated. However, it would be clear to a person skilled in the art that this type of industrial effluent can be subjected to the same methods as the pickling solution. The subject matter of claims 1-3 and 14 is therefore not inventive (PCT Article 33(3)).

4. The subject matter of claims 4-13, 15, 17, 18 and 23, however, is considered inventive. These claims disclose method steps (and the corresponding devices) which make it more economical to treat together the pickling solution and the industrial effluents, or which permit the treatment of special steel pickling solutions. Documents D1 and D2 do not suggest the treatment of special steel pickling solutions and do not propose the additional method steps.